AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the

application:

1.   (Currently Amended) A method of grid computing, the method comprising:

sending a request for data describing an application process in a grid
computing environment, wherein the data identifies the application
process and computational processing requirements of the
application process ;

receiving the data describing the application process in the grid computing
environment;

receiving one or more lists of available computing resources from a
plurality of computer devices in [[a]] the grid computing
environment;

receiving, from [[an]] the application process, a document specifying a
communication protocol and a communication channel;

reading the document;

accessing properties information reflecting addresses of the computer
devices;

determining whether the communication channel requires communication
with at least one of the computer devices;

instantiating, based on the list of available computing resources for the
required computer devices, the communication channel with the
application process using the communication protocol; and

communicating with the application process using the communication
protocol through the communication channel.

2.   (Cancelled).

3.   (Currently Amended) The method of claim [[2]] 1, wherein the data further
        comprises ~~process identification or~~ the degree of consumption of a resource by
        the application process.

4.   (Previously Presented) The method of claim 3, wherein the data further
        comprises a definition of the resource.

5.   (Previously Presented) The method of claim 3, wherein the resource comprises
        one or more of a central processing unit, memory, socket bindings, memory
        storage space, and communication bandwidth.

6.   (Previously Presented) The method of claim 1, wherein communicating
        comprises sending a command to the application process to perform an action.

7.   (Previously Presented) The method of claim 6, wherein the action is one of start,
        stop, wait, resume, and change priority.

8.   (Previously Presented) The method of claim 1, wherein the document further
        specifies one or more commands that the application process is capable of
        receiving and executing.

9.   (Withdrawn) A system comprising:

                a computer system with a processor and a memory;

a service handling at least locating, reserving, allocating, monitoring, and deallocating one or more computational resources on the computer system for an application program, the service configured to read a document specifying how to interface with the application program; and

the application program configured to execute on the computer system as an application process managed by the service.

10.   (Withdrawn) The system of claim 9 wherein the service is further configured to instantiate a communications channel with the application program.

11.   (Withdrawn) The system of claim 9 wherein interfacing with the application program comprises sending a request for data describing the application process and receiving data describing the application process.

12.   (Withdrawn) The system of claim 11 wherein the data comprises process identification or degree of consumption of a resource by the application process.

13.   (Withdrawn) The system of claim 12 wherein the data further comprises a definition of the resource.

14.   (Withdrawn) The system of claim 12 wherein the resource comprises one or more of the processor, the memory, socket bindings, memory storage space, and communication bandwidth.

15. (Withdrawn) The system of claim 9 wherein specifying how to interface comprises sending a command to the application process to perform an action.

16. (Withdrawn) The system of claim 15 wherein the action is one of start, stop, wait, resume, and change priority.

17. (Withdrawn) The system of claim 9 wherein the document further specifies one or more commands that the application process is capable of receiving.

18. (Withdrawn) The system of claim 9 further comprising a second application program configured to execute on the computer system as a process managed by the grid manager, wherein the second service is configured to read a second document specifying how to interface with the second application program.

19. (Currently Amended) A computer-readable medium that stores a set of instructions which, when executed, performs a method of grid computing, the method comprising:

> sending a request for data describing an application process in a grid computing environment, wherein the data identifies the application process and computational processing requirements of the application process ;

> receiving the data describing the application process in the grid computing environment;

> receiving one or more lists of available computing resources from a plurality of computer devices in [[a]] the grid computing environment;

receiving, from [[an]] the application process, a document specifying a
communication protocol and a communication channel;

reading the document;

accessing properties information reflecting addresses of the computer
devices;

determining whether the communication channel requires communication
with at least one of the computer devices;

instantiating, based on the list of available computing resources for the
required computer devices, the communication channel with the
application process using the communication protocol; and

communicating with the application process using the communication
protocol through the communication channel.

20.   (Cancelled).

21.   (Currently Amended) A system, comprising:

a memory; and

a processor, wherein the processor and the memory:

send a request for data describing an application process in a grid
computing environment, wherein the data identifies the
application process and computational processing
requirements of the application process ;

receive the data describing the application process in the grid
computing environment;

receive one or more lists of available computing resources from a
plurality of computer devices in [[a]] the grid computing
environment;

receive, from [[an]] the application process, a document specifying
a communication protocol and a communication channel;

read the document;

access properties information reflecting addresses of the computer
devices;

determine whether the communication channel requires
communication with at least one of the computer devices;

instantiate, based on the list of available computing resources for
the required computer devices, the communication channel
with the application process using the communication
protocol; and

communicate with the application process using the communication
protocol through the communication channel.

22.   (Cancelled).

23.   (New) The method of claim 21, wherein the data further comprises the degree of
consumption of a resource by the application process.

24.   (New) The method of claim 23, wherein the data further comprises a definition of
the resource.